

Amendments to the Specification:

Please replace the paragraph beginning at page 9, line 9 with the following amended paragraph:

Generally, holes 30 and 32 can be dimensioned as desired. In certain embodiments, holes 30 and/or 32 have a maximum dimension (e.g., a diameter) of at most about 0.05 inch (e.g., at most about 0.03 inch, at most about 0.02 inch, at most about 0.01 inch, at most about 0.005 inch). In some embodiments, holes 30 and/or 32 are dimensioned to prevent a component (e.g., a strut) of stent 26 from protruding through the holes 30 and 32. In such embodiments, holes 30 and 32 can have, for example, a maximum dimension that is smaller than a maximum dimension of the component (e.g., the strut) of stent 26. As an example, a coronary stent delivery system (e.g., having struts with dimensions of 0.004 inch x 0.004 inch) can include a sheath that has one or more holes with a maximum dimension of, for example, 0.003 inch (e.g., one or more square holes with dimensions of 0.003 inch x 0.003 inch). As another example, a peripheral stent delivery system (e.g., having struts with dimensions of 0.008 inch x 0.008 inch) can include a sheath that has one or more holes with a maximum dimension of, for example, 0.007 inch (e.g., one or more square holes with dimensions of 0.007 inch x 0.007 inch).

Please replace the paragraph beginning at page 12, line 10 with the following amended paragraph:

In some embodiments, the surface of the distal end of the sheath, rather than a surface of the tip, can be shaped. For example, FIGS. 8A and 8B show a stent delivery system 300 that includes a distal tip 304, a catheter 309, and a sheath 308 that partially surrounds catheter 309 so that an implantable medical endoprosthesis (e.g., a stent) can be disposed in a space 302 between catheter 309 and sheath 308. Sheath 308 has a distal end 311 with a serrated (shaped) surface 310 so that, when system 300 is assembled, portions of surface 310 contact a surface 306 of tip 304, defining gaps 312 between surface 306 and the portions of surface 310 that do not contact surface 306. As shown in FIG. 8C, when a flushing fluid (depicted as arrows) travels through

space 302, the fluid can travel from space 302 to the exterior of sheath 308 via gaps ~~[[310]]~~312. The presence of gaps ~~[[310]]~~312 can prevent distal end 311 of sheath 209 from extending outwardly during flushing.

Please delete previous abstract at page 22 and add the following new abstract:

Medical delivery systems and methods are disclosed. In some embodiments, the systems include a catheter and a sheath that at least partially surrounds the catheter. The sheath has a proximal end, a distal end, and at least one orifice between the proximal and distal ends of the sheath.